HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Development
Office of Archaeology and Historic Preservation
111 21st Avenue Southwest, Post Office Box 48343
Olympia, Washington 98504-8343 (206)753-4011

IDENTIFICATION SECTION

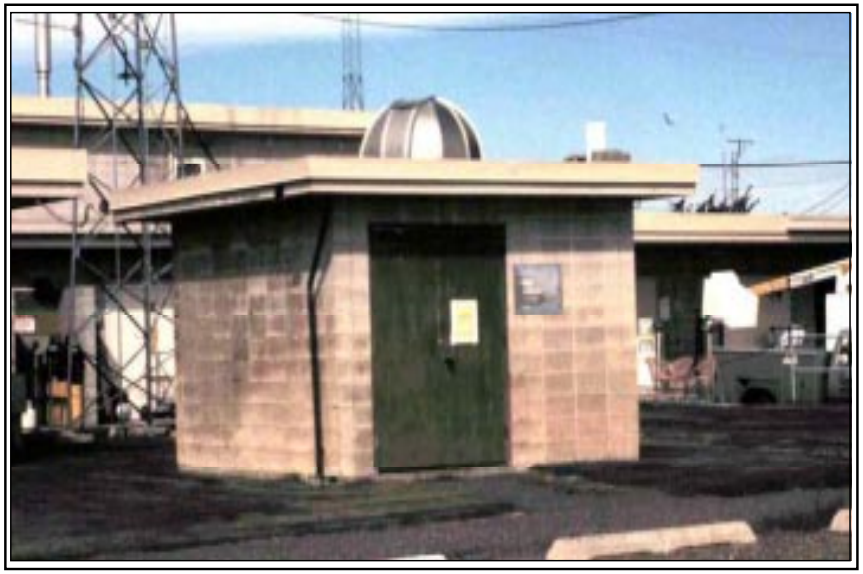
Field Site No. 622-B **OAHP No.** **Date Recorded** 14 Aug 1996
Site Name Historic Meteorological Observatory Building (Pilot Balloon Release Building) Revised 01 June 1998
Common
Field Recorder Carmen Perez, D.W. Harvey, J.K. Keating
Owner's Name Department of Energy, Richland Operations Office
Address P.O. Box 550
City/State/Zip Code Richland, WA 99352

Status

- [x] Survey/Inventory
- [ ] National Register
- [ ] State Register
- [ ] Determined Eligible
- [ ] Determined Not Eligible
- [ ] Other (HABS, HAER, NHL)
- [ ] Local Designation

Photography
HCRL:
Roll 248, Frame 18-20
Photography Neg. No. (Roll No. & Frame No.) Roll 336, Frames 5-8
View of South, East & North Facades; Interior
Date September 1996, April 1998

Photo at right: Roll 248, Frame 18
View of south and east facades



Classification [ ] District [ ] Site [x] Building [ ] Structure [ ] Object
District Status [x] NR [ ] SR [ ] LR [ ] INV
Contributing [x] **Non-Contributing** [ ]
District/Thematic Nomination Name Hanford Site Manhattan Project and Cold War Era Historic District

Description Section
Materials & Features/Structural Types
Building Type Industry
Plan Rectangular
Structural System Concrete block
No. of Stories One

Roof Type

- [ ] Gable
- [x] Flat
- [ ] Monitor
- [ ] Gambrel
- [ ] Shed
- [ ] Hip
- [ ] Pyramidal
- [ ] Other (specify)

Cladding (exterior Wall Surfaces

- [ ] Log
- [ ] Horizontal Wood Siding
  - Rustic/Drop [ ]
  - Clapboard [ ]
- [ ] Wood Shingle
- [ ] Board and Batten
- [ ] Vertical Board
- [ ] Asbestos/Asphalt
- [ ] Brick
- [ ] Stone
- [ ] Stucco
- [ ] Terra Cotta
- [x] Concrete/Concrete Block
- [ ] Vinyl/Aluminum Siding
- [ ] Metal (specify)
- [ ] Other (specify)

Roof Material

- [ ] Wood Shingle
- [ ] Wood Shake
- [ ] Composition
- [ ] Slate
- [x] Tar/Built-up
- [ ] Tile
- [x] Metal (specify) Aluminum "bubble" opening
- [ ] Other (specify)
- [ ] Not visible

Foundation

- [ ] Log
- [ ] Post & Pier
- [ ] Stone
- [ ] Brick
- [ ] Not visible
- Concrete
  - [ ] Block
  - [x] Poured
  - [ ] Other (specify)

(Include detailed description in **Description of Physical Appearance)**

Integrity

	Intact	Slight	Moderate	Extensive
Changes to plan	x			
Changes to windows	x			
Changes to original cladding	x			
Changes to interior	x			
Other (specify)				

LOCATION SECTION

Address Building 622-B, 600 Area Meteorological Complex
City/Town/County/Zip Code Richland/Benton County/99352
Twp 13 N **Range** 26 E **Section** 31 **I/4 Section** SE **1/4 1/4 Sec** SW, SE
Tax No./Parcel No. **Acreage**
Quadrangle or map name Gable Butte, Washington Quad. - 7.5 min series 1986
UTM References Zone 11 **Easting** 300320 **Northing** 5159740
Plat/Block/Lot
Supplemental Map(s) WHC 39209028.9

High Styles/Forms (Check one or more of the following)

- [ ] Greek Revival
- [ ] Gothic Revival
- [ ] Italianate
- [ ] Second Empire
- [ ] Romanesque Revival
- [ ] Stick Style
- [ ] Queen Anne
- [ ] Shingle Style
- [ ] Colonial Revival
- [ ] Beaux Arts/Neoclassical
- [ ] Chicago/Commercial Style
- [ ] American Foursquare
- [ ] Mission Revival
- [ ] Spanish Colonial Revival/Mediterranean
- [ ] Tudor Revival
- [ ] Craftsman/Arts & Crafts
- [ ] Bungalow
- [ ] Prairie Style
- [ ] Art Deco/Art Moderne
- [ ] Rustic Style
- [ ] International Style
- [ ] Northwest Style
- [ ] Commercial Vernacular
- [ ] Residential Vernacular (see below)
- [x] Other (specify) Industrial Vernacular

Vernacular House Types

- [ ] Gable Front
- [ ] Gable Front and Wing
- [ ] Side Gable
- [ ] Cross Gable
- [ ] Pyramidal/Hipped
- [ ] Other (specify)

NARRATIVE SECTION

Study Unit Themes (check one or more of the following)

[ ] Agriculture	[ ] Conservation	[ ] Politics/Government/Law
[ ] Architecture/Landscape Architecture	[ ] Education	[ ] Religion
[ ] Arts	[ ] Entertainment/Recreation	[ ] Science & Engineering
[ ] Commerce	[ ] Ethnic Heritage (specify) _____	[ ] Social Movements/Organizations
[ ] Communications	[ ] Health/Medicine	[ ] Transportation
[ ] Community Planning/Development	[ ] Manufacturing/Industry	[x] Other (specify) Cold War Era
	[ ] Military	[x] **Study Unit Sub-Theme(s)** Health Safety, Medical; Research & Development

Statement of Significance

Date of Construction 1966 Architect/Engineer/Builder Bouillon, Christofferson & Schairer, Consulting Engineers

[x] In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places.

[x] In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

The 622 Hanford Meteorology Station consists of several buildings and structures that support the complex's function to conduct air monitoring, atmospheric studies and evaluate atmospheric impacts on dispersion of airborne hazardous materials. Scientists and the builders of the Hanford Site established this comprehensive meterological program to determine weather conditions that would allow for safe release of process gasses (especially from the 221 Buildings). Today, the Hanford Meteorology Station compiles climatological data and provides forecasts to the Hanford Site staff and emergency response teams. It is now an U.S. government weather station.

The 622-Meterological Observatory provided space to inflate and track weather balloons, and store helium cylinders and other equipment. Balloons were inflated inside the building and released outside. A theodolite optical device within the building was used to site the balloon through the adjustable aluminum-panel "bubble" opening in the roof. Balloon tracking enabled measurements of upper level winds and other meteorological observations. A mercury barometer inside the building was used to measure the atmospheric pressure.

The 622 Complex played an important role in the pioneering concept of environmental monitoring and ensuring health and safety in the region through studies and use of atmospheric data. The 622-B Meterological Observatory was an essential part of the complex, where weather balloon studies of wind were conducted. It is therefore the conclusion of the U.S. Department of Energy that Building 622-B is eligible for inclusion in the National Register of Historic Places under Criterion A as a contributing property within the Hanford Site Manhattan Project and Cold War Era Historic District.

Description of Physical Appearance

The 622-B Building measures 12 feet^2 and is constructed of concrete block with 2 inch by 6 inch rafters and a wood sheating roof covered by a tar and gravel surface. The roof contains an adjustable aluminum-panel "bubble" opening which permited the viewing and tracking of balloons with a theodolite. The theodolite still exists in the building (although balloon studies are no longer conducted), and is located on a raised platform under the "bubble". Also located inside the building is a mercury barometer and helium storage racks. The building contains no windows, one double door, and a concrete foundation and floor.

Major Bibliographic References

Battelle Facilities Administration. n.d. *Facilities Catalog* . PNL-MA-587. Battelle Pacific Northwest Laboratories. Richland, Washington.

Burk, Ken (PNNL). April 1998. Personal Communication. Richland, Washington.

Drawings: H-6-330, H-6-333, H-6-372

Gerber, M.S. 1993. *Manhattan Project Buildings and Facilities at the Hanford Site: A Construction History* . WHC-MR-0425. Westinghouse Hanford Company. Richland, Washington.

Stone, W.A. 1964. *Meteorological Instrumentation of the Hanford Area.* HW-62455. U.S. Atomic Energy Commission. Richland, Washington.

U.S. Department of Energy, Richland Operations Office (DOE-RL). 1994. *Meteorological and Climatological Services* . RL-P94-022. Richland, Washington.